## NAME

Module 7 Solving Linear Equations and Inequalities of Two Variables
Lesson 2 Graphing Linear Equations of Two Variables

## DATE

For each equation, complete the table.

1. $3 x-3 y=0$

| $x$ | $y$ |
| :---: | :---: |
| 0 |  |
|  | -2 |
|  | -6 |

2. $x-2 y=5$

| $x$ | $y$ |
| :---: | :---: |
|  | -3 |
|  | -1 |
| 9 |  |

3. $4 x-y=-1$

| $x$ | $y$ |
| :---: | :---: |
| 0 |  |
|  | -3 |
|  | 9 |

4. $x+3 y=-2$

| $x$ | $y$ |
| :---: | :---: |
| 1 |  |
|  | 2 |
|  | 0 |

Using the following equations, find the $x$ - and $y$-intercepts of the graphs.
5. $x-y=2$
6. $5 x-y=3$
7. $2 x+3 y=6$
8. $y-6 x=3$

Graph each equation using a table, the intercept method or the slope-intercept method.
9. $y=-x$

10. $y=\frac{1}{2} x$


Independent Practice
11. $y=-6$

13. $y=3 x+2$

12. $3 y=x+9$

14. $y-5 x=-1$


## Journal

1. Why is it important to graph at least three points of a linear equation?
2. Explain why you cannot find all the solutions to a linear equation, but you can represent all the solutions to a linear equation.
3. Explain how you would graph the equation $2 x-y=4$ using intercepts.
4. Explain the meaning of a sign on the side of a mountain road that reads, " $10 \%$ grade." Use slope in your explanation.
5. Explain to a student who was absent how to graph a line using the slope-intercept method.

## Cumulative Review

## Combine like terms.

1. $4 c+5 b-d-c+6 b-a$
2. $x-y^{2}+x+x^{3}$
3. $y^{3}-y^{2}+x+x^{3}$
4. $6 \sqrt{x}+2 \sqrt{x}$
5. $-2 \sqrt{x}+5+3 \sqrt{x}$
$\qquad$
6. $a+b-2 c-3 d+d-4 a$
7. $x^{2}+3 x-4 x+7$
8. $3 x^{3}-y^{3}+5 y^{2}-x^{3}$
9. $9 a^{2} b-4 a b+2 a^{2} b$
10. $5 x^{3}-2 x y^{3}+6 x^{3}$
$\qquad$
